DOCUMENT RESUME

ED 207 272 EC 140 006

AUTHOR Hill, Nancy C.; And Others
TITLE Academic Achievement in a Handicapped and a Non-Handicapped Incarcerated Juvenile Delinquent Population.
PUB DATE Apr 81
NOTE 12p.; Paper presented at the Annual International Convention of The Council for Exceptional Children (59th, New York, NY, April 12-17, 1981, Session B-10).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Adolescents; *Age Grade Placement; Arithmetic; *Delinquency; *Disabilities; Emotional Disturbances; Learning Disabilities; Mild Mental Retardation; Reading Ability; Secondary Education; Spelling
IDENTIFIERS Delinquent Handicapped; Incarcerated Youth

ABSTRACT

Academic achievement in reading, arithmetic, and spelling was investigated among 42 incarcerated emotionally handicapped (EH), learning disabled (LD), educable mentally retarded (EMR), and nonidentified incarcerated juvenile delinquents (12 to 17 years old). Ss were administered the Wide Range Achievement Test to determine level of achievement in relationship to placement. Results indicated that the handicapped delinquents were achieving between 5 to 8 years below grade placement while the nonhandicapped delinquents were functioning 3 to 6 years below grade placement. The LD group was achieving approximately 5 to 6 years below, the EH group was achieving 5 to 6 years below, and the EMR group was achieving approximately 7 to 8 years below expected grade placement. There was a significant difference between the nonhandicapped and the handicapped groups in reading, spelling, and arithmetic; however, there was also a significant difference between groups in both age and grade placement. (Author/SB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ACADEMIC ACHIEVEMENT IN A HANDICAPPED AND A NON-HANDICAPPED INCARCERATED JUVENILE DELINQUENT POPULATION

Submitted To: 1981 CEC Convention

Submitted By: Nancy C. Hill, Ph.D.
Department of Special Education
University of South Carolina

Darrel E. Minifie, Ed.D.
Department of Special Education
University of South Carolina

Elsie L. Minifie, Ed.D.
Department of Special Education
Georgia College

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Nancy Hill

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ACADEMIC ACHIEVEMENT IN A HANDICAPPED AND
A NON-HANDICAPPED INCARCERATED JUVENILE
DELINQUENT POPULATION

Evidence being collected by experts in education, medicine, law enforcement, justice and juvenile corrections suggests that a correlation between academic failure and delinquent behavior patterns exist. Adolescents with learning problems may turn to delinquency and crime in order to achieve the success that they did not get in school. Many articles have been written concerning the relationship between juvenile delinquency and problems in academic achievement. These problems may emerge as learning disabilities, reading retardation, mental retardation or emotional disturbance (Jacobson, 1974; Poremba, 1976; Sabatino, 1973; and Silberberg and Silberberg, 1971).

Mauser (1974) stated that the "average" juvenile delinquent has a mean age of 13.5 and has a mean intelligence quotient of 95. He further stated that although the "average" juvenile delinquent's intelligence quotient may indicate average academic achievement potential, there is a discrepancy from two to four years between achievement potential and actual achievement level.

The present study addresses three questions: What is the level of achievement in reading, arithmetic and spelling for each of the following groups (1) non-handicapped, (2) learning disabled,
retarded. Are the achievement levels comparable to the level

indicated by Mauser. Is there variation among the four groups and between the two groups(handicapped and non-handicapped).

METHOD

Subjects

Forty-two subjects were selected from an adolescent incarcerated population in the state of South Carolina. Fifteen were identified as learning disabled, six as emotionally handicapped and five as educable mentally retarded. These subjects comprised the total identified special education population during the study. Sixteen subjects were randomly selected from the total non-identified incarcerated population. Table I summarized the mean age and the mean expected grade placement for each of the groups studied.

TABLE I

DEMOGRAPHIC DATA FOR ALL SUBJECTS

GROUPS	N	MEAN AGE	MEAN GRADE PLACEMENT
Learning Disabled	15	14.4	9.4
Emotionally Handicapped	6	14.6	9.4
Educable Mentally Retarded	5	15.7	10.4
Non-Handicapped	16	16.2	11.4
Total Handicapped	26	14.9	9.8
Total Non-Handicapped	16	16.2	11.4

Instrumentation

Level II of the Wide Range Achievement Test (WRAT)was administered to each of the forty two subjects who participated in the study. The WRAT was selected because of the following four reasons:

1. It provides a sample of academic behavior in reading (words in isolation).
2. It requires the same behaviors that are required of the student in an academic setting.
3. It is a single test that provides a valid sample of spelling, reading and arithmetic.
4. It is a quick assessment as it can be administered in one setting (Jastak, Bijou and Jastak, 1965).

Analysis of Data

Grade equivalent means were computed for all four groups as well as raw scores, means, percentiles and standard scores. Means were also computed for the randomly selected group and the handicapped groups as two separate and intact groups. A test of significance was obtained for the two independent means in reading spelling, arithmetic, age and grade placement. A standard error of the mean difference was also computed for the two groups. As analysis of variance among groups was not conducted as some of the groups were extremely limited in number. Table II shows the mean results among the four groups in spelling with regard to grade placement, grade equivalent, standard score, percentile and grade deficit. Table III shows the mean grade equivalent, standard deviation and test of significance between the handicapped and non-handicapped groups in spelling.

TABLE II

RESULTS OF SPELLING ACHIEVEMENT AMONG GROUPS

GRADE PLACEMENT	GROUPS	G.E.	SS	%tile	G.D.
8.4	Learning Disabled	3.0	61	-1	5.4
9.4	Emotionally Handicapped	3.3	64	1st.	6.1
10.4	Educable Mentally Handicapped	3.0	60	-1	7.4
11.4	Non-Handicapped	5.8	76	5th	4.6

*Scores based on 1976 WRAT Manual

TABLE III

RESULTS IN ACHIEVEMENT BETWEEN GROUPS

GROUPS	MEAN GRADE EQUIVALENT	SD	t
Total Handicapped group	4.3	6.03	1.79
Non-Handicapped Group	5.8	9.91	

Results from this study suggested that a randomly selected group of incarcerated adolescents were achieving approximately four years below grade expectancy in spelling. The handicapped adolescents were achieving from five to seven years below grade expectancy. The LD group was achieving approximately five years below grade placement, the EH group was achieving approximately six years below and the EMH group approximately seven years below grade placement. Accounting for differences in grade

placement, the LD group was achieving as well or better than the non-handicapped group while the EH group was achieving one year below the NH and the EMH group was achieving three years below the non-handicapped group.

There was a mean grade equivalent difference of two years and five months between the handicapped and the non-handicapped groups in spelling. The difference was significant at the .05 level of significance.

Table IV shows the results among groups in arithmetic. Means are reported for grade placement, standard score, percentile and grade deficit. Table V reports mean grade equivalent and standard deviation as well as the statistical significance between the two groups in arithmetic.

TABLE IV

RESULTS OF ARITHMETIC ACHIEVEMENT AMONG GROUPS

GRADE PLACEMENT	GROUPS	GRADE EQUIVALENT	STANDARD SCORE	%TILE	G.D.
9.4	LD	3.4	66	1st	6.0
9.4	EH	3.9	73	3rd	5.4
10.4	EMH	3.4	68	2nd	7.0
11.4	NH	5.7	79	8th	5.6

TABLE V

RESULTS OF ARITHMETIC ACHIEVEMENT BETWEEN GROUPS

Groups	Mean G.E.	Standard Deviation	t
Total Handicapped	3.4	2.34	4.09
Total Non-Handicapped	6.1	6.50	

In analyzing the arithmetic data, as in spelling, a similar pattern emerged. The randomly selected, non-handicapped population was approximately four years below their grade expectancy. The handicapped group was achieving from five to seven years below their grade placement. The emotionally handicapped group scored slightly higher than the LD and ENH groups. The random sample of non-handicapped subjects, as in spelling, scored significantly higher than the handicapped group of subjects.

Table VI shows the results among the four groups in reading with scores reported on grade placement, grade equivalent, standard score, percentile and grade deficit. Table VII reports means, standard deviations and statistical significance between the two groups.

TABLE VI

RESULTS OF READING ACHIEVEMENT AMONG GROUPS

Grade Placement		G.E.	SS	%tile	G.B.
9.4	LD	2.4	66	1st	7.0
9.4	EH	3.9	68	2nd	5.4
10.4	EMH	2.2	61	-1st	8.2
11.4	RS	6.8	86	18th	4.5

TABLE VII

RESULTS OF READING ACHIEVEMENT BETWEEN GROUPS

Groups	Mean Grade Equivalent	Standard Deviation	t
Total Handicapped	2.6	6.89	5.40
Total Non-Handicapped	6.8	16.19	

Results of the reading evaluation suggested that the randomly selected group had

age grade placement. The handicapped group was six to eight years below grade placement. They were achieving less in reading than in spelling or arithmetic.

SUMMARY

Researchers in many fields suggest that there is a relationship between academic failure and juvenile delinquency. This study was designed to compare the academic achievement of identified handicapped and non-handicapped incarcerated juvenile delinquents in spelling, arithmetic and reading. The WIde Range Achievement Test was administered to all subjects because it provides a valid sample of spelling, arithmetic and reading achievement.

In addressing the three basic issues, research results indicated the following:

1. The non-handicapped group was achieving approximately three to six years below expected grade placement; however, the handicapped group was achieving approximately five to eight years below expected grade placement.

2. The LD group was achieving approximately five to seven years below grade placement.

3. The EH group was achieving approximately five to six years below expected grade placement.

4. The EMH group was achieving approximately seven to eight years below expected grade placement.

5. There was a significant difference between the non-handicapped and the handicapped in spelling arithmetic and reading. However, one should use caution when interpreting the results as there was also a significant difference between groups in both chronological age and expected grade placement.

DISCUSSION

As Public Law 94-142 requires programs for all identified handicapped children it is recommended that this study be duplicated with a larger population. If the achievement discrepancies are as severe as indicated by the results of this study, this population deserves intensive study in order to develop and implement programs to increase academic achievement.

REFERENCES

Ary, D. Jacobs, L. & Razavieh, A. Introduction to research in education. New York: Holt, Rinehart & Winston, 1979.

Connally, A. J. KeyMath diagnostic arithmetic test. American Guidance Service, Inc., 1976.

Mauser, A. J. Learning disabilities and delinquent youth. Academic Therapy, 1974, 9 (6), 389-402.

Jastak, B. F., Bijou, S.W. & Jastak, S.R. Wide range achievement test. Guidance Associates of Delaware, Inc., 1976.

Jacobson, F. Learning disabilities and juvenile delinquency: A demonstrated relationship. In R.E. Weber (Ed.), Handbook of learning disabilities: A prognosis for the child, the adolescent, the adult. Englewood Cliffs, N.J.: Prentice Hall, 1974.

Polk, K. & Schafer, W.E. Schools and delinquency. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Poremba, C.D. Learning disabilities, youth and delinquency: Programs for intervention. In H.R. Myklebust (ED.), Progress in learning disabilities. Vol, 3. New York: Grune & Strattor 1975.

Silberberg, N.E. & Silberberg, M.C. School achievement and delinquency. Review of Educational Research, 1971, 41(1), 17-33.

Woods, M.L. & Moe, A.J. Analytical reading inventory, Charles E. Merrill Publishing C., 1977.